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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,241	01/03/2002	Hiroyuki Saito	F-7270	6653

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EXAMINER	
REKSTAD, ERICK J	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/037,241	SAITO ET AL.	
	Examiner	Art Unit	
	Erick Rekstad	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a first action for application no. 10/037241 filed on January 3, 2002 in which claims 1-6 are presented for examination.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,263,164 to Nakahara et al.

[claim 1]

Nakahara teaches the method of focusing an image form a subject onto a pair of sensor arrays each consisting of a plurality of light-sensitive cells;

Quantizing outputs from said light-sensitive cells contained in a quantization and conversion region of each sensor array having a preset width (Col 55 Lines 23-67, Fig. 38); and

Varying the width of said quantization and conversion region according to a difference in sensitivity between said sensor arrays or between said light-sensitive cells during the quantization (Col 57 Line 60-Col 58 Line 13, Figs. 45A-45C).

[claims 2, 5 and 6]

As shown in Figure 38, Nakahara teaches a rangefinder within a camera containing a pair of sensor arrays (153L and 153R) each consisting of a plurality of light-sensitive cells onto which an image from a subject is focused; a quantization portion (154L and 154R) for quantizing outputs from said light-sensitive cells contained in a quantization and conversion region of each sensor array having a preset width (Col 55 Lines 23-67). Further as shown in Figure 45A-45C, Nakahara teaches said quantization portion includes varying portion for varying the width of the quantization and conversion region according to a difference in sensitivity between said sensor arrays or between said light-sensitive cells during the quantization (Col 57 Line 60-Col 58 Line 13, Col 60 Lines 10-19, Col 61 Lines 4-23, Col 62 Lines 34-56, Fig. 52). As required by claim 6, Nakahara teaches the rangefinder contained in an image device (Col 53 Line 30-Col 54 Line 60, Figs. 35-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara as applied to claim 2 above, and further in view of US Patent 4,652,119 to Suzuki et al.

[claim 3]

As shown above for claim 2, Nakahara teaches an image signal output device comprising:

A pair of sensor arrays each consisting of a plurality of light-sensitive cells onto which an image from a subject is focused; and

A quantization portion fro quantizing output from said light-sensitive cells contained in a quantization and conversion region of each sensor array having a preset width (Fig. 38);

Further as shown in Figure 45A-45C, Nakahara teaches said quantization portion includes varying portion for varying the width of the quantization and conversion region according to a difference in sensitivity between said sensor arrays or between said light-sensitive cells during the quantization (Col 57 Line 60-Col 58 Line 13, Col 60 Lines 10-19, Col 61 Lines 4-23, Col 62 Lines 34-56, Fig. 52).

Nakahara teaches the light sensitive cells are photodiodes which produce electric signals corresponding to the brightness of the light received (Col 55 Lines 32-35). Nakahara further shows a maximum and minimum values for the signals (Figs. 43A-C). Nakahara further teaches the adjustment of one of the values based on the difference between the right and left sensor arrays (Figs. 45A-45C, Col 57 Line 60-Col 58 Lines 13). Nakahara does not teach that the quantization is determined by reference

voltages. Suzuki teaches it is well known in the art that the signal produced by photodiodes is a voltage (Col 2 Lines 33-68, Fig. 4). Further, Suzuki teaches it is well known in the art to use the voltage to compare with a reference voltage in order to quantize the signal (Col 2 Lines 54-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Nakahara with the detection system of Suzuki as the detection system is well known in the art.

[claim 4]

As shown above, the second reference voltage is set according to a difference between the output from the senor arrays or from the light-sensitive cells which are produced when images from a common measurement region are brought to a focus (Col 57 Line 60-Col 58 Line 13, Col 60 Lines 10-19, Col 61 Lines 4-23, Col 62 Lines 34-56, Figs. 45A-45C, Fig. 52).

[claims 5 and 6]

Nakahara further teaches the image signal output device in a rangefinder as required by claim 5 (Col 55 Lines 23-67). As required by claim 6, Nakahara teaches the rangefinder contained in an image device (Col 53 Line 30-Col 54 Line 60, Figs. 35-37).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,483,336 to Tocher.

US Patent 5,721,977 to Yamawaki et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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